

Notice of Allowability

Application No.

10/829,322

Examiner

Seyed Azarian

Applicant(s)

KLEEN ET AL.

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/7/2007.
2. ☒ The allowed claim(s) is/are 1-5, 7-16 and 18-34, now renumbered as 1-32.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Response to Amendment

1. Based on applicant's amendment, filed 8/7/2007, see page 16 through 18 of the remarks, with respect to cancellation of claims 6 and 17, and amended claims 1, 11-12, 20, 25 and 28-34, have been fully considered and are persuasive, upon further consideration the rejection, of 103(a) for claims 1-5, 7-16 and 18-34, are hereby withdrawn.

The claims 1-5, 7-16 and 18-34 now renumbered as 1-32 are allowed.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance.

This invention relates generally, to a computer-based 3D imaging method for a wireless endoscope unit.

Based on applicant's amendment, with respect to claim 1 representing claims 12, 25 and 29-30, the closest prior art of record (Yokoi and Johnson), Yokoi reference is directed to a capsule endoscope that is swallowed in order to examine interior regions of a living body, and Johnson reference is anatomical modeling of the human body with a computer, and more particularly to a computerized system for analyzing tubular structures of the human body such as the digestive tract of a living person for detecting colorectal polyps. But do not teach or suggest, among other things, “

calculating distance squares ($d_{2ij} = d_2(X_{mi}, X_{rj})$) between the image parameters, stored in the form of N-dimensional feature vectors (X_{mi}), of recorded individual images with the image parameters, stored in the form of N-dimensional reference vectors (X_{ri}), of images of diseased tissue structures from a reference image database by calculating the square of the Euclidean length of their difference vectors, and determining the reference vectors (X_{ri}) of the reference images whose distance squares (d_{2ij}) are a minimum in relation to the respective feature vectors (X_{mi}) of the individual images to be examined”.

Additionally claim 11 representative of claims 28 and 31-34, the closest prior art of record (Yokoi and Johnson) do not teach or suggest, among other things, "with each I-th recording, the position of the endoscope unit is detected and transmitted together with the image data to the reception device and evaluation device and is digitally stored therein, i being a whole number greater than or equal to one, and the evaluation device is configured to carry out an image processing procedure for concatenation of individual images, wherein the concatenation of two individual images (m, n), includes using the path difference, covered by the capsule-type endoscope unit and loaded with a weighting factor, between the instantaneous recording positions (X_m , X_n) of the unit for recording the two individual images (m, n)".

These key features in combination with the other features of the claimed invention are neither taught nor suggested by (Yokoi and Johnson) prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seyed Azarian whose telephone number is (571) 272-7443. The examiner can normally be reached on Monday through Thursday from 6:00 a.m. to 7:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached at (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application information Retrieval (PAIR) system. Status information for published application may be obtained from either Private PAIR or Public PAIR.

Status information about the PAIR system, see [http:// pair-direct.uspto.gov](http://pair-direct.uspto.gov). Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Seyed Azarian
Patent Examiner
Group Art Unit 2624
October 3, 2007

A handwritten signature in cursive script that reads "Seyed Azarian".